In the Claims:

Claims 1, 5, 13, 14, 29, 36, and 42 have been amended as follows:

1. (Once Amended) A method of removing silicon dioxide upon an etch stop layer, the method comprising:

providing a silicon dioxide dielectric layer upon an etch stop layer;

providing a gaseous etchant including a hydrofluorocarbon etch gas and including an etch selectivity enhancing fluorocarbon compound; and

exposing the silicon dioxide dielectric layer to the gaseous etchant.

5. (Once Amended) A method as defined in claim 3, wherein the refractory metal nitride is selected from the group consisting of cobalt nitride, titanium nitride, tungsten nitride, and hafnium nitride.

13. (Once Amended) A method of etching a self-aligned contact comprising:

providing a semiconductive substrate having a silicon nitride layer thereon and a silicon dioxide dielectric layer on the silicon nitride layer;

placing the semiconductive substrate in an etch chamber;

etching into the silicon dioxide dielectric layer to form a depression, using gaseous CHF_3 and an etch selectivity enhancing compound selected from the group consisting of CF_4, C_2F_6, C_4F_8, C_5F_6, C_5F_8, and combinations thereof;

etching the depression to the semiconductive substrate; and

stopping said etching after the etch exposes the silicon nitride layer.

14. (Once Amended) A method of removing silicon dioxide dielectric upon an etch stop layer that is situated upon a semiconductive substrate positioned within an etch chamber, the method comprising:

etching the silicon dioxide dielectric to a first depth with a first etch recipe including a hydrofluorocarbon, the first etch recipe having a first selectivity to the etch stop layer;

etching the silicon dioxide dielectric to a second depth with a second etch recipe including the hydrofluorocarbon and an etch selectivity enhancing compound consisting of a fluorocarbon selected from the group consisting of CF_4, C_2F_6, C_4F_8, C_5F_6, C_5F_8, and combinations thereof, the second etch recipe having a second selectivity to the etch stop layer, wherein the first selectivity is greater than the second selectivity; and

stopping the second etching upon the etch stop layer.

29. (Once Amended) An etching method comprising:

providing an etch chamber and a semiconductive substrate having thereon a bulk dielectric upon an underlying layer that is a compositionally dissimilar dielectric;

etching the bulk dielectric with a first etch recipe including hydrofluorocarbon and an etch selectivity enhancing gas consisting of fluorocarbon in a first proportion; and

etching the bulk dielectric with a second etch recipe including hydrofluorocarbon and the etch selectivity enhancing gas in a second proportion that is greater than the first proportion, wherein etch selectivity to the underlying layer is greater for the second etch recipe than etch selectivity for the first etch recipe.

36. (Once Amended) In an etch chamber having a roof composed of silicon, a semiconductive substrate support for supporting a semiconductive substrate having a bulk dielectric disposed upon an etch stop layer, and having a silicon ring surrounding the semiconductive substrate support, an etching method comprising:

maintaining the temperature of:

the roof of the etch chamber in a range from about 135° C to about 200° C;

the semiconductive substrate support in a range from about -30° C to about 80° C; and

the silicon ring in a range from about 180° C to about 250° C;

etching a recess having an aspect ratio of at least 5:1 in the bulk dielectric using a gaseous etchant including CHF_3 and an etch selectivity enhancing compound consisting of carbon and fluorine;

etching the recess to the semiconductive substrate; and

stopping etching the recess after the etch stop layer has been exposed.

42. (Once Amended) A method of determining a specific etch recipe for etching silicon dioxide with predetermined selectivity to an etch stop layer underlying the silicon dioxide, the method comprising:

etching silicon dioxide with a gaseous etchant including a hydrofluorocarbon and an etch selectivity enhancing gas consisting of carbon and fluorine to obtain a selectivity to the etch stop layer;

repeating said etching with different amounts of said etch selectivity enhancing gas consisting of carbon and fluorine to correspondingly obtain different selectivities to said etch stop layer;

selecting an amount of said different amounts of said etch selectivity enhancing gas corresponding to a desired etch selectivity to said etch stop layer; and

etching silicon dioxide with a gaseous etchant including the hydrofluorocarbon and said selected amount of said selectivity gas to obtain said desired selectivity to the etch stop layer.